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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,203	10/19/2001	Krishnendu Chakraborty	30014200-1067/P6339NP	8440

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EXAMINER
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MAHMOUDI, HASSAN

ART UNIT	PAPER NUMBER
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2165

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/038,203

Applicant(s)

CHAKRABORTY ET AL.

Examiner

Tony Mahmoudi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 37-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 37-81 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
SAM RIMELL  
PRIMARY EXAMINER

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Remarks*

1. In response to communications filed on 06-July-2004, claims 1-36 are cancelled and new claims 37-81 are added per applicant's request. Claims 37-81 are presently pending in the application.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 37-40, 42-48, 52-55, 57-63, 67-70, and 72-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kothuri et al (U.S. Patent No. 6,470,344) in view of Riddle (U.S. Patent No. 4,466,060.)

As to claim 37, Kothuri et al teaches a method in a data processing system comprising:  
examining the nodes in a plurality of hierarchical trees (see column 20, lines 25-34);  
determining if a node is present in a tree (see column 4, lines 1-12 and lines 54-65); and  
creating a merged tree based on the nodes in the hierarchical trees (see column 9, lines 33-43 and see column 13, lines 14-27.)

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Kothuri et al does not teach determining if a node is present in only one tree.

Riddle teaches message routing in a computer network (see Abstract), in which he teaches determining if a node is only present in only one tree (see column 7, lines 43-63, where “if a node is present in only one tree” is read on “each node has one and only one parent node”).)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kothuri et al to include determining if a node is present in only one tree.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kothuri et al by the teaching of Riddle, because determining if a node is present in only one tree, would prevent duplication of a node when two or more trees are merged together.

As to claims 38, 53 and 68, Kothuri et al as modified, teaches further comprising:  
creating a reference node to the node determined to be present in only one tree (see Kothuri et al, column 9, lines 44-55; column 17, lines 59-65; and see column 23, lines 1-13) if a node is determined to be present in only one tree (see Riddle, column 7, lines 43-63); and  
adding the reference to the merged tree (see Kothuri et al, column 18, lines 1-53, and see column 19, lines 4-43.)

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As to claims 39, 54 and 69, Kothuri et al as modified, teaches further comprising:  
creating the reference node (see Kothuri et al, column 9, lines 44-55; column 17, lines 59-65; and see column 23, lines 1-13) in response to a determination that a node is present in only one tree (see Riddle, column 7, lines 43-63.)

As to claims 40, 55 and 70, Kothuri et al as modified, teaches wherein the reference node is a pointer (see Kothuri et al, column 9, lines 44-55, and see column 17, lines 63-65.)

As to claims 42, 57 and 72, Kothuri et al as modified, teaches further comprising:  
determining if the hierarchical trees comprise a set of equivalent nodes (see Kothuri et al, column 25, lines 33-43, where “equivalent nodes” is read on “in case of a tie where more than one node has the same low access count”.)

As to claims 43, 58 and 73, Kothuri et al as modified, teaches further comprising:  
selecting the node with the highest priority from the set of equivalent nodes (see Kothuri et al, column 27, lines 10-44, and see line 65 through column 28, line 19) if the hierarchical trees comprise a set of equivalent nodes (see Kothuri et al, column 25, lines 33-43.)

As to claims 44, 59 and 74, Kothuri et al as modified, teaches further comprising:  
creating a shallow clone of the selected node; and adding the shallow clone to the merged tree (see Kothuri et al, column 18, lines 1-15, and see column 19, lines 4-43.)

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As to claims 45-48, 60-63, and 75-78, Kothuri et al as modified, teaches wherein the hierarchical trees comprise a group tree, a user tree, and an admin tree (see Kothuri et al, figure 4, where multi-level hierarchical trees are shown. It is inherent that in a hierarchical tree structure, the tree consists of multiple levels, i.e. “group level”, “user level”, and “admin level”, which in the referenced figures, can be depicted in any of the hierarchical levels. Also see column 3, lines 44-55, and see column 8, lines 45-61.)

As to claim 52, Kothuri et al teaches a data processing system comprising:  
a memory comprising a program; and a processor for running the program (see column 5, line 66 through column 6, line 19.)

For the remaining steps of this claim, the applicant is directed to the remarks and discussions made in claim 37 above.

As to claim 67, Kothuri et al teaches a computer-readable medium (see column 6, lines 5-19) comprising instructions for controlling a data processing system to perform a method (see column 31, lines 21-23.)

For the remaining steps of this claim, the applicant is directed to the remarks and discussions made in claim 37 above.

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4. Claims 41, 56 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kothuri et al (U.S. Patent No. 6,470,344) in view of Riddle (U.S. Patent No. 4,466,060), as applied to claims 37-40, 42-48, 52-55, 57-63, 67-70, and 72-78 above, and further in view of Blais et al (U.S. Pub. No. 2002/0178437.)

As to claims 41, 56 and 71, Kothuri et al as modified, still does not teach wherein the reference node is a Java reference.

Blais et al teaches an object-oriented allocation method and apparatus (see Abstract), in which he teaches wherein the reference node is a Java reference (see page 4, paragraph 66.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kothuri et al as modified, to include wherein the reference node is a Java reference.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kothuri et al as modified, by the teaching of Blais et al, because wherein the reference node is a Java reference, would provide an object-oriented environment (Java environment) for referencing memory and accessing objects without explicitly checking the object.

5. Claims 49-50, 64-65, and 79-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kothuri et al (U.S. Patent No. 6,470,344) in view of Riddle (U.S. Patent No. 4,466,060), as applied to claims 37-40, 42-48, 52-55, 57-63, 67-70, and 72-78 above, and further in view of Hsing et al (U.S. Publication No. 2002/0023113.)

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As to claims 49, 64, and 79, Kothuri et al as modified, still does not teach wherein the hierarchical trees are DOM trees.

Hsing et al teaches a remote document updating system (see Abstract), in which he teaches wherein the hierarchical trees are DOM trees (see Abstract; figure 8; and see paragraphs 18-19.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kothuri et al as modified, to include wherein the hierarchical trees are DOM trees.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kothuri et al as modified, by the teaching of Hsing et al, because including wherein the hierarchical trees are DOM trees, would provide a “complete picture” of the document, as taught by Hsing et al (see figure 7, and see paragraph 48) and would further enable the system, by using XML (extensible Markup Language) documents to represent the local database, and further using the DOM (Document Object Model) established by the World Wide Web Consortium (W3C), to provide a standardized interface for manipulation of the XML document, as taught by Hsing et al (see paragraph 5.)

As to claims 50, 65 and 80, Kothuri et al as modified, teaches wherein the DOM trees are XML DOM trees (see Hsing et al, figures 7-8, and see paragraphs 5, 19 and 48.)



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6. Claims 51, 66 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kothuri et al (U.S. Patent No. 6,470,344) in view of Riddle (U.S. Patent No. 4,466,060), as applied to claims 37-40, 42-48, 52-55, 57-63, 67-70, and 72-78 above, and further in view of Geil (U.S. Patent No. 3,662,400.)

As to claims 51, 66 and 81, Kothuri et al as modified, still does not teach:

printing the merged tree.

Geil teaches a subsidiary document identification system (see Abstract), in which he teaches printing the merged tree (see column 10, lines 45-60.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kothuri et al as modified, to include printing the merged tree.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kothuri et al as modified, by the teaching of Geil, because printing the merged tree, would enable the user to obtain a copy of the properly arranged, tier-oriented detail merged tree, as taught by Geil (see column 10, lines 65-67.)

#### *Response to Arguments*

7. Applicant's arguments filed on 06-July-2004 with respect to the rejected claims in view of the cited references have been fully considered but they are moot in view of the new grounds for rejection.

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*Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (571) 272-4078. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (571) 272-4083.



**SAM RIMM**  
**PRIMARY EXAMINER**

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December 15, 2004